

SEQUENCE LISTING

<110> Hisamitsu Pharmaceutical Co., Inc.

<120> METHOD OF SCREENING COMPOUND CAPABLE OF ACCELERATING OR INHIBITING APOPTOSIS, APOPTOSIS ACCELERATOR AND APOPTOSIS INHIBITOR

<130> FP05-0112-00

<150> JP 2004-93,266

<151> 2004-03-26

<150> JP 2004-176,107

<151> 2004-06-14

<160> 26

<170> PatentIn version 3.1

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Glu Leu Ser Thr Lys Asn Arg Glu Arg Trp Cys His Glu Ile Gln Ile
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Met Lys Lys Leu Asn His Ala Asn Val Val Lys Ala Cys Asp Val Pro
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Glu Glu Leu Asn Ile Leu Ile His Asp Val Pro Leu Leu Ala Met Glu
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Tyr Cys Ser Gly Gly Asp Leu Arg Lys Leu Leu Asn Lys Pro Glu Asn
 100 105 110

Cys Cys Gly Leu Lys Glu Ser Gln Ile Leu Ser Leu Leu Ser Asp Ile
 115 120 125

Gly Ser Gly Ile Arg Tyr Leu His Glu Asn Lys Ile Ile His Arg Asp
 130 135 140

Leu Lys Pro Glu Asn Ile Val Leu Gln Asp Val Gly Gly Lys Ile Ile
145 150 155 160

His Lys Ile Ile Asp Leu Gly Tyr Ala Lys Asp Val Asp Gln Gly Ser
165 170 175

Leu Cys Thr Ser Phe Val Gly Thr Leu Gln Tyr Leu Ala Pro Glu Leu
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Phe Glu Asn Lys Pro Tyr Thr Ala Thr Val Asp Tyr Trp Ser Phe Gly
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Thr Met Val Phe Glu Cys Ile Ala Gly Tyr Arg Pro Phe Leu His His
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Leu Gln Pro Phe Thr Trp His Glu Lys Ile Lys Lys Lys Asp Pro Lys
225 230 235 240

Cys Ile Phe Ala Cys Glu Glu Met Ser Gly Glu Val Arg Phe Ser Ser
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His Leu Pro Gln Pro Asn Ser Leu Cys Ser Leu Ile Val Glu Pro Met
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Glu Asn Trp Leu Gln Leu Met Leu Asn Trp Asp Pro Gln Gln Arg Gly
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Gly Pro Val Asp Leu Thr Leu Lys Gln Pro Arg Cys Phe Val Leu Met
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Asp His Ile Leu Asn Leu Lys Ile Val His Ile Leu Asn Met Thr Ser
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Ala Lys Ile Ile Ser Phe Leu Leu Pro Pro Asp Glu Ser Leu His Ser
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Glu Leu Leu Ser Glu Thr Gly Ile Ser Leu Asp Pro Arg Lys Pro Ala
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Tyr Leu Phe Asp Lys Ser Lys Thr Val Tyr Glu Gly Pro Phe Ala Ser
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Gln Leu Pro Ile Ile Gln Leu Arg Lys Val Trp Ala Glu Ala Val His
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Tyr Val Ser Gly Leu Lys Glu Asp Tyr Ser Arg Leu Phe Gln Gly Gln

435

440

445

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Gln Met Thr Tyr Gly Ile Ser Ser Glu Lys Met Leu Lys Ala Trp Lys
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Tyr Leu Glu Asp Gln Ile Met Ser Leu His Ala Glu Ile Met Glu Leu
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Gln Lys Ser Pro Tyr Gly Arg Arg Gln Gly Asp Leu Met Glu Ser Leu
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Glu Gln Arg Ala Ile Asp Leu Tyr Lys Gln Leu Lys His Arg Pro Ser
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Asp His Ser Tyr Ser Asp Ser Thr Glu Met Val Lys Ile Ile Val His
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Thr Val Gln Ser Gln Asp Arg Val Leu Lys Glu Leu Phe Gly His Leu
595 600 605

Ser Lys Leu Leu Gly Cys Lys Gln Lys Ile Ile Asp Leu Leu Pro Lys
610 615 620

Val Glu Val Ala Leu Ser Asn Ile Lys Glu Ala Asp Asn Thr Val Met
625 630 635 640

Phe Met Gln Gly Lys Arg Gln Lys Glu Ile Trp His Leu Leu Lys Ile
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Ala Cys Thr Gln Ser Ser Ala Arg Ser Leu Val Gly Ser Ser Leu Glu
660 665 670

Gly Ala Val Thr Pro Gln Thr Ser Ala Trp Leu Pro Pro Thr Ser Ala
675 680 685

Glu His Asp His Ser Leu Ser Cys Val Val Thr Pro Gln Asp Gly Glu
690 695 700

Thr Ser Ala Gln Met Ile Glu Glu Asn Leu Asn Cys Leu Gly His Leu
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Glu Leu Ser Thr Lys Asn Arg Glu Arg Trp Cys His Glu Ile Gln Ile
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Met Lys Lys Leu Asn His Ala Asn Val Val Lys Ala Cys Asp Val Pro
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Glu Glu Leu Asn Ile Leu Ile His Asp Val Pro Leu Leu Ala Met Glu
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Tyr Cys Ser Gly Gly Asp Leu Arg Lys Leu Leu Asn Lys Pro Glu Asn
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Cys Cys Gly Leu Lys Glu Ser Gln Ile Leu Ser Leu Leu Ser Asp Ile
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Gly Ser Gly Ile Arg Tyr Leu His Glu Asn Lys Ile Ile His Arg Asp
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Leu Lys Pro Glu Asn Ile Val Leu Gln Asp Val Gly Gly Lys Ile Ile
145 150 155 160

His Lys Ile Ile Asp Leu Gly Tyr Ala Lys Asp Val Asp Gln Gly Ser
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Leu Cys Thr Ser Phe Val Gly Thr Leu Gln Tyr Leu Ala Pro Glu Leu
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Phe Glu Asn Lys Pro Tyr Thr Ala Thr Val Asp Tyr Trp Ser Phe Gly
195 200 205

Thr Met Val Phe Glu Cys Ile Ala Gly Tyr Arg Pro Phe Leu His His
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Leu Gln Pro Phe Thr Trp His Glu Lys Ile Lys Lys Lys Asp Pro Lys
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Cys Ile Phe Ala Cys Glu Glu Met Ser Gly Glu Val Arg Phe Ser Ser

Gln Lys Ser Pro Tyr Gly Arg Arg Gln Gly Asp Leu Met Glu Ser Leu
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Glu Gln Arg Ala Ile Asp Leu Tyr Lys Gln Leu Lys His Arg Pro Ser
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Asp His Ser Tyr Ser Asp Ser Thr Glu Met Val Lys Ile Ile Val His
580 585 590

Thr Val Gln Ser Gln Asp Arg Val Leu Lys Glu Leu Phe Gly His Leu
595 600 605

Ser Lys Leu Leu Gly Cys Lys Gln Lys Ile Ile Asp Leu Leu Pro Lys
610 615 620

Val Glu Val Ala Leu Ser Asn Ile Lys Glu Ala Asp Asn Thr Val Met
625 630 635 640

Phe Met Gln Gly Lys Arg Gln Lys Glu Ile Trp His Leu Leu Lys Ile
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Ala Cys Thr Gln Ser Ser Ala Arg Ser Leu Val Gly Ser Ser Leu Glu
660 665 670

Gly Ala Val Thr Pro Gln Thr Ser Ala Trp Leu Pro Pro Thr Ser Ala
675 680 685

Glu His Asp His Ser Leu Ser Cys Val Val Thr Pro Gln Asp Gly Glu
690 695 700

Thr Ser Ala Gln Met Ile Glu Glu Asn Leu Asn Cys Leu Gly His Leu
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Asn Leu Asp Trp Ser Trp Leu Thr Glu
740 745

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Pro Ser Gln Ser Leu Gly Leu Asn Val His Asn Met Thr Pro Ala Thr
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Ser Pro Ile Gly Ala Ser Gly Val Ala His Arg Ser Gln Ser Ser Glu
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 Gly Val Ser Ser Leu Ser Ser Ser Pro Ser Asn Ser Leu Glu Thr Gln
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 Ser Gln Ser Leu Ser Arg Ser Gln Ser Met Asp Ile Asp Gly Val Ser
 100 105 110
 Cys Glu Lys Ser Met Ser Gln Val Asp Val Asp Ser Gly Ile Glu Asn
 115 120 125
 Met Glu Val Asp Glu Asn Asp Arg Arg Glu Lys Arg Ser Leu Ser Asp
 130 135 140
 Lys Glu Pro Ser Ser Gly Pro Glu Val Ser Glu Glu Gln Ala Leu Gln
 145 150 155 160
 Leu Val Cys Lys Ile Phe Arg Val Ser Trp Lys Asp Arg Asp Arg Asp
 165 170 175
 Val Ile Phe Leu Ser Ser Leu Ser Ala Gln Phe Lys Gln Asn Pro Lys
 180 185 190
 Glu Val Phe Ser Asp Phe Lys Asp Leu Ile Gly Gln Ile Leu Met Glu
 195 200 205
 Val Leu Met Met Ser Thr Gln Thr Arg Asp Glu Asn Pro Phe Ala Ser
 210 215 220
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 225 230 235 240
 Arg Asn Leu Leu Leu Asn Thr Gly Ser Asn Pro Gly Thr Ser Pro Met
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 260 265 270
 Ala Ser Gly Gly Ala Ser Asn Trp Asp Ser Tyr Ser Asp His Phe Thr
 275 280 285
 Ile Glu Thr Cys Lys Glu Thr Asp Met Leu Asn Tyr Leu Ile Glu Cys
 290 295 300
 Phe Asp Arg Val Gly Ile Glu Glu Lys Lys Ala Pro Lys Met Cys Ser
 305 310 315 320
 Gln Pro Ala Val Ser Gln Leu Leu Ser Asn Ile Arg Ser Gln Cys Ile
 325 330 335
 Ser His Thr Ala Leu Val Leu Gln Gly Ser Leu Thr Gln Pro Arg Ser
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 Leu Gln Gln Pro Ser Phe Leu Val Pro Tyr Met Leu Cys Arg Asn Leu
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Pro Tyr Gly Phe Ile Gln Glu Leu Val Arg Thr Thr His Gln Asp Glu
370 375 380

Glu Val Phe Lys Gln Ile Phe Ile Pro Ile Leu Gln Gly Leu Ala Leu
385 390 395 400

Ala Ala Lys Glu Cys Ser Leu Asp Ser Asp Tyr Phe Lys Tyr Pro Leu
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Met Ala Leu Gly Glu Leu Cys Glu Thr Lys Phe Gly Lys Thr His Pro
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Val Cys Asn Leu Val Ala Ser Leu Arg Leu Trp Leu Pro Lys Ser Leu
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Ser Pro Gly Cys Gly Arg Glu Leu Gln Arg Leu Ser Tyr Leu Gly Ala
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Phe Phe Ser Phe Ser Val Phe Ala Glu Asp Asp Val Lys Val Val Glu
465 470 475 480

Lys Tyr Phe Ser Gly Pro Ala Ile Thr Leu Glu Asn Thr Arg Val Val
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Ser Gln Ser Leu Gln His Tyr Leu Glu Leu Gly Arg Gln Glu Leu Phe
500 505 510

Lys Ile Leu His Ser Ile Leu Leu Asn Gly Glu Thr Arg Glu Ala Ala
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Leu Ser Tyr Met Ala Ala Val Val Asn Ala Asn Met Lys Lys Ala Gln
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Met Gln Thr Asp Asp Arg Leu Val Ser Thr Asp Gly Phe Met Leu Asn
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Phe Leu Trp Val Leu Gln Gln Leu Ser Thr Lys Ile Lys Leu Glu Thr
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Val Asp Pro Thr Tyr Ile Phe His Pro Arg Cys Arg Ile Thr Leu Pro
580 585 590

Asn Asp Glu Thr Arg Val Asn Ala Thr Met Glu Asp Val Asn Asp Trp
595 600 605

Leu Thr Glu Leu Tyr Gly Asp Gln Pro Pro Phe Ser Glu Pro Lys Phe
610 615 620

Pro Thr Glu Cys Phe Phe Leu Thr Leu His Ala His His Leu Ser Ile
625 630 635 640

Leu Pro Ser Cys Arg Arg Tyr Ile Arg Arg Leu Arg Ala Ile Arg Glu
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Leu Asn Arg Thr Val Glu Asp Leu Lys Asn Asn Glu Ser Gln Trp Lys
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 Thr Leu Pro Leu Asn Ser Asp Val Pro Lys Val Phe Ala Ala Leu Pro
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 850 855 860
 Tyr His Ile Ser Thr Ile Phe Lys Ser Leu Trp Gln Asn Ile Ala His
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 His Gly Thr Phe Met Glu Glu Phe Asn Ser Gly Lys Gln Phe Val Arg
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 Tyr Ile Asn Met Leu Ile Asn Asp Thr Thr Phe Leu Leu Asp Glu Ser
 900 905 910
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 Lys Glu Gln Trp Asp Gln Leu Pro Arg Asp Gln Gln Gln Ala Arg Gln
 930 935 940
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965

970

975

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 995 1000 1005

Val Glu Asn Pro Glu Lys Tyr Gly Phe Glu Pro Lys Lys Leu Leu
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Asp Gln Leu Thr Asp Ile Tyr Leu Gln Leu Asp Cys Ala Arg Phe
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Ala Lys Ala Ile Ala Asp Asp Gln Arg Ser Tyr Ser Lys Glu Leu
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Phe Glu Glu Val Ile Ser Lys Met Arg Lys Ala Gly Ile Lys Ser
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Thr Ile Ala Ile Glu Lys Phe Lys Leu Leu Ala Glu Lys Val Glu
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Glu Ile Val Ala Lys Asn Ala Arg Ala Glu Ile Asp Tyr Ser Asp
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Ala Pro Asp Glu Phe Arg Asp Pro Leu Met Asp Thr Leu Met Thr
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Asp Pro Val Arg Leu Pro Ser Gly Thr Ile Met Asp Arg Ser Ile
 1115 1120 1125

Ile Leu Arg His Leu Leu Asn Ser Pro Thr Asp Pro Phe Asn Arg
 1130 1135 1140

Gln Thr Leu Thr Glu Ser Met Leu Glu Pro Val Pro Glu Leu Lys
 1145 1150 1155

Glu Gln Ile Gln Ala Trp Met Arg Glu Lys Gln Asn Ser Asp His
 1160 1165 1170